Name: Date:
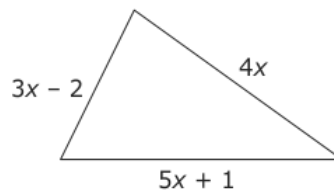
You must show all work for each problem. A correct answer with no work shown will earn no credit.

1. Which is equivalent to the following expression? $-1.42(3x - 5)$

 a. 4.26x + 7.10   b. 4.26x − 7.10

c. -4.26x + 7.10   d. -4.26x − 7.10

3x − 2

4x

5x + 1

2. What is the perimeter of the triangle below?

a. 12x − 3   b. 12x − 1

c. 10x + 1

3. Which expression is equivalent to $2(3p - t) - (-4p + t)$?

a. 2p − t   b. 2p − 3t

c. 10p − t   d. 10p − 3t

4. Which expression is equivalent to $p - 3r - 3r + 2p$?

a. 3p − 6r   b. p − 6r

c. p − 4r

5. What is the simplified form of $6n - 17p - 10n - 9p$?

a. -4n − 8p   b. -4n − 26p

c. 16n − 8p   d. 16n − 26p

6. The original price of a computer is $599.99. Suzie has a 15%-off coupon for the computer. A sales tax of 7% will be added to the sale price of the computer. Which expression would calculate how much Suzie will pay for the computer?

a. 599.99(0.85)(1.07)   b. 599.99(0.85)(0.07)

c. 599.99(0.15)(1.07)   c. 599.99(0.15)(0.07)

7. Angela bought a calculator on sale for 15% off. Sales tax is 7.5%. If the calculator costs x dollars, which expression represents the total cost of the calculator?

a. $(x - 0.15)(0.075)$ b. $(x - 0.15)(1.075)$

c. $(x - 0.15x)(0.075)$ d. $(x - 0.15x)(1.075)$

8. At a clothing store, jackets are on sale for 30% off. Sales tax is 5%. Which expression will calculate the total cost of a jacket with an original price of x?

a. x(0.35)   b. x(0.75)

c. x(0.70)(1.05)   d. x(0.70)(0.05)

9. Dylan is buying a book for $8.99. Sales tax is 7%. Which expression would calculate the total cost of the book?

a. 8.99(0.07)   b. 8.99(0.93)

c. 8.99(1.07)

10. Melinda is paid $1,200 per month plus 8% of her sales for the month. Which expression would calculate Melinda's monthly pay for x amount of sales?

a. 1,200(0.08x)   b. 1,200(0.08) + x

c. 1,200 + 0.08x   d. 1,200 + 0.08 + x

11. Brett rented a paddle boat. It cost $6.50 to rent the boat, along with $2.25 an hour. If he rents it for a part of an hour, a proportional amount is charged. Brett used the paddle boat for 1.5 hours. Brett paid with a 20 dollar bill. How much change did Brett receive?

a. $11.25

b. $10.12

c. $9.88

d. $8.75

12. Mr. Roshan will buy $12\frac{1}{2}$ pounds of beef for a cookout. The price for the first 3 pounds of beef is $4.99 per pound. After that, the price is $4.49 per pound. How much will Mr. Roshan pay for the beef?

a. $62.38

b. $57.63

c. $56.13

d. $22.41

13. Tom ran the first 1.5 miles of a 3-mile race in 10.5 minutes. If Tom ran the entire race in 22.5 minutes, what was his average speed per mile to the nearest tenth for the last half of the race?

a. 7.5 minutes per mile

b. 8.0 minutes per mile

c. 11.0 minutes per mile

d. 12.0 minutes per mile

14. Becky ran 1.7 miles on Monday, $1\frac{1}{2}$ miles on Wednesday, and $2\frac{3}{8}$ miles on Friday. How many total miles did Becky run?

a. 5.1 miles

b. 5.38 miles

c. 5.575 miles

15. Lisa made 42 gallons of cider over two days. She made twice as many gallons of cider on day two as she made on day one. How many gallons of cider did Lisa make on day two?

a. 14

b. 21

c. 28

d. 84

16. The cost for a taxi ride is $3.00, plus $0.60 for each mile traveled. Ms. Jackson was charged $15.60 for a taxi ride. How many miles was Ms. Jackson's taxi ride?

a. 5   b. 21

c. 26   d. 31

17. Jeremy has $36 saved. He wants to have $300 for a trip next year. He will save the same amount of money each month for the next 12 months. How much money will Jeremy need to save each month?

a. $22   b. $24

c. $25   d. $28

18. Melanie is going to a book sale. All the books are priced for $2 each, including sales tax. She can spend no more than $15. Which inequality represents the number of books Melanie can buy?

a. $x \leq 7$ b. $x \geq 7$

c. $x \leq 8$

19. Which inequality has 3 in its solution set?

a. $6n + 4 < 20$ b. $6n - 4 > 20$

c. $6n + 4 > 20$

20. Which graph represents the solution to 5 times a number, n, is less than 65?

a.
```
7  8  9  10 11 12 13 14 15 16 17
                  ○
```

b.
```
7  8  9  10 11 12 13 14 15 16 17
                  ●
```

c.
```
55 56 57 58 59 60 61 62 63 64 65
               ○
```

d.
```
55 56 57 58 59 60 61 62 63 64 65
               ●
```